

$\Lambda_b(5920)^0$ $J^P = \frac{3}{2}^-$

Status: ***

Quantum numbers are based on quark model expectations.

$\Lambda_b(5920)^0$ MASS						
VALUE (MeV)	DOCUMENT ID	TECN	COMMENT			
5919.8±0.1±0.6	1,2 AAIJ	12AL LHCb	$p\bar{p}$ at 7 TeV			
1 Observed in $\Lambda_b(5920)^0 \rightarrow \Lambda_b^0 \pi^+ \pi^-$ decays with 52.5 ± 8.1 candidates with a significance of 10.2 sigma.						
2 AAIJ 12AL measures $m(\Lambda_b(5920)^0) - m(\Lambda_b^0) = 300.40 \pm 0.08 \pm 0.04$ MeV. We have adjusted the measurement to our best value of $m(\Lambda_b^0) = 5619.4 \pm 0.6$ MeV. Our first error is their experiment's error and our second error is the systematic error from using our best values.						

$\Lambda_b(5920)^0$ WIDTH				
VALUE (MeV)	CL%	DOCUMENT ID	TECN	COMMENT
<0.63	90	AAIJ	12AL LHCb	$p\bar{p}$ at 7 TeV

$\Lambda_b(5920)^0$ DECAY MODES				
Mode	Fraction (Γ_i/Γ)			
$\Gamma_1 \quad \Lambda_b^0 \pi^+ \pi^-$	seen			

$\Lambda_b(5920)^0$ BRANCHING RATIOS				
$\Gamma(\Lambda_b^0 \pi^+ \pi^-)/\Gamma_{\text{total}}$	Γ_1/Γ			
VALUE	DOCUMENT ID	TECN	COMMENT	
seen	AAIJ	12AL LHCb	$p\bar{p}$ at 7 TeV	

$\Lambda_b(5920)^0$ REFERENCES				
AAIJ	12AL PRL 109 172003	R. Aaij <i>et al.</i>	(LHCb Collab.)	

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